

Seeing South America



PAMOUS writer has said that the four greatest marvels of the universe are the mountain, the sea, the volcano, the desert. All of these and many more wonderful sights are now at the bidding of those who would cultivate an acquaintance with the South American continent and its peoples. The latter are now welconning the traveler from foreign shores and

are gradually improving the things that minister to his comfort and convenience.

Instead of climbing Switzersland's rugged peaks, the enterprising traveler is invited to ascend the higher Andes to examine the hones left by the Incas and, perchance, contrast them with the low, rock-hewn caves of India's Elephanta; he who has gazed in silent admiration upon Japan's sacred and symmetrical Fujiyama will be doubly pleased to see its counterpart in Ecusdon's smoking Cotopati; sailing up South American rivers to forests where man has never trod may be just as appealing as a voyage along the Nile to view the decaying works of the hordes of past ages; in lieu of a stroll on the chariot-worn streets of Pompeli, we may meander amid the ruins of Bolivia's Thaunancu, a city that flourished possibly 3,000 years ago; indeed, the whole continent of South America calls for more travelers to view its productive regions and its wonders—subjects that have not been exaggerated as compared with similar once of other land.

WILLIAM A. REID.

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PANORAMIC VIEW OF THE HARBOR AND CITY OF RIO DE JANEIRO, AS SEEN FROM "SUGAR LOAF"

SCENIC WONDERS of SOUTH AMERICA

By ANNIE S. PECK, Author of "The South American Tour"

MENTOR GRAVURES

THE HARBOR OF MANAOS · LAKE TITICACA · SCENE ON THE TRANSANDINE RAILROAD MOUNT ACONCAGUA · IGUASSÚ FALLS · HARBOR OF RIO DE JANEIRO



HE great continent to the south-that portion of the New World which first received the name of America-is a land that calls for superlatives. The stupendous mountain range that extends from Panama to Cape Horn numbers among its thousands of peaks the loftiest summits of the Western Hemisphere.

To overcome this nature-reared barrier along the Pacific Coast, Man, not to be thwarted, has constructed the highest railroads not only of America but of the world.

On the elevated plateaus among these cloud-piercing mountains we find large lakes, the highest on which steamers regularly ply. These are at an altitude exceeding that of many renowned summits. Every one Entered as second-class matter March 10, 1913, at the postoffice at New York, N. Y., under the act of March 3, 1879. Copyright, 1920, by The Mentor Association, Inc.

knows that in South America there flows the mighty Amazon, that prodigious river which in length and volume of water exceeds every other upon the globe. Among the splendid ports of the world, pre-eminent for scenic beauty, is the far-famed harbor of Rio de Janeiro (ree-o de zhah-nav-ro.)

Last, but not least, among the astounding sights of South Americathough even the name is vet unfamiliar to many-are the Iguassú (ee-gwas-soo) Falls, higher than proud



Niagara, of double the width, at times of greater volume, and with surroundings of magical beauty which render them peerless among waterfalls.

The Mighty Amazon

Happily, with a single exception, these varied wonders are easily accessible to all who undertake "The South American Tour." The exception, the River Amazon, may with some little trouble be included; but its usual omission by tourists is less a matter of regret than would be the omission of any of the others. For with various other discomforts added to the heat and humidity of the tropics, a long sail past monotonous and generally distant shores hardly affords sufficient enjoyment to repay the average tourist for the time and trouble necessary to make the voyage on the King of Rivers.

The main portion of the river may be viewed for a stretch of two thousand miles from its mouth, and the few cities of the section visited, either by a steamer from Rio de Janeiro or by one from New York or London.

The true mouth of the Amazon, lying just under the Equator to the



MAIL BOAT LEAVING THE PORT OF SERPA On the Amazon, about 100 miles from Manaos

the one patronized by seagoing vessels. The favored route is that at the south, usually called the Pará River. from twenty to eighty miles in width. This, the chief outlet of the Tocantins River, drains a large section regarded by geographers as not strictly a part of the Amazon basin. The tropical city of Pará,

north of Maraios Island, is not

with a population of 150,000, is a port of call for all steamers, and is closely hemmed in

on three sides by a dense, impenetrable forest. Pará boasts of splendid harbor works, a fine cathedral, an imposing theater, a famous museum, and a really unique park—a tract of the primitive forest, preserved from the encroachment of the city by the wise foresight of the municipal fathers.

Advancing up stream, the Amazon's shores are often dimly seen, the actual width of the river varying from twenty to sixty miles, while, in periods of inundation, the forest is partly submerged for a width of four hundred miles. In mid-stream one is conscious of the yellow-brown waters below, the dearb given wall at the side. At long intervals the monotony is relieved by the sight of a small town, or a bit of clearing around a hut, each a wee nibble in the awesome forest, back of which are vast regions, not only untrodden by the foot of man, but hiding great spaces where snakes and birds alone can make their way amid the suffocating density



LOADING BRAZIL NUTS

An Amazon River steamer is receiving the cargo of a barge that has been collecting from forests bordering tributary streams What courage had the earliest explorers of the Sopte American wilderness! How intrepid that Spaniard, Orelana, who in 1540, nearly a century before the founding of New York City, embarked in Ecuador on an unknown stream and floated ever down and onward till at last he emerged on the broad Atlantic, believing himself to be, as the was, the true discoverer of the world's greatest river!

of vegetation.

Should one wish to reach the source of the Amazon, he does not follow the stream

from its lower reaches, but climbs high among the peaks of the Andes, where, within one hundred miles of the Pacific, are scattered delightful little lakes, fed by rivulets from eternal glaciers. On these cool, bracing uplands, 13,000 feet above the sea, and easily accessible from the Pacific coast, there is assurance of health and vigor instead of the enervation invertable in the low hot basin to the east.

Giants of the Andes

The gigantic mountain range in which the chief tributaries of the Amazon originate has a length of 4,400 miles, a width in sections of more than 100 miles, and among its unnumbered peaks are the loftiest of the world, if we except some peaks of the Himalayas. Many of its seenic splendors are now easy of access to the casual tourist, but for at least

another generation a multitude of them will remain unvisited save by adventurous explorers.

From half a dozen different ports on the east or west coast the iron horse will bear one to points where, aloft among stately mountains, the traveler may pay homage to sublime creations of nature. En route from Guayaquil (gwigh-ah-kee) to Quito (kee-to), there is a view of the highest Ecuadorian summit, Chimborazo (20,498 feet).* Frater south there are a number of still higher peaks. Cotopaxi (19,613 feet), the world's tallest active volcano, rears its cone about fifty miles southeast of Onito.

Peru contains one of the broadest of the mountain sections. In places it is four parallel ranges wide. A long stretch of the great plateau region boasts, if not the apex of America, yet a greater number of peaks



A BUTTRESSED TREE

of America, yet a greater number of peass above 20,000 feet than in any of the other American republics. The splendid dome of Huascaran (21,812 feet) (wahs-kahr-an'), the wonderful Huailas (wah-ec'las) Valley, and the Llanganuoc (lyahn'-gah'-noo'-co) Gorge are not yet on the tourist's itinerary, but will be when the long-promised railway from the fine harbor of Chimbote (sheem-bo-tay) passes through Yungay at Huascaran's foot. Thousands will then gaze with worshiping eyes upon this radiant mountain (21,812 feet). Its steep slopes, though but ten degrees from the Equator, are clothed with a glistening mantle of ice which, especially in the moonlight, is of transcendent beauty.

High Altitude Railroads

By rail from Callao (kahl-yah-o) and Lima (lee'-mah), Peru, at sea level, one may climb in eight hours to a height of 15,665 feet, higher than the crest of Europe's Alpine monarch, Mont Blanc. This, the highest point of railroading in the world, is not on the main line of the Central Peruvian or Oroya Railroad, but on a branch to Morochocha, a side trip worth-while if one is not hurried. However, most persons who make the journey upwards will be satisfied with passing the divide on the main line at an attitude of nearly three miles. On this fascinating day's ride one ascends the narrow Rimac Valley to heights from which one views gloomy ravines, gorges, and foaming streams, bridges, tunnels, barren slopes, and towns in small basins, where belching smoke frequently betrays the presence of useful ores. Beyond the long tunnel that crosses

*There is a marked variation in statements in different reference works concerning the altitude of the great South American peaks. The figures given in this number of The Mentor are hased on a careful comparative study of the best authorities.

the divide a few graceful snow-clad mountains are visible. Altogether,

This remarkable road across the Peruvian Andes was planned and largely constructed by an American, Henry Meiggs, who, in the early 70 s, laid the rails as far as Chicla, 88 miles. With no power save gravitation one might come down in less than the seven hours in which the ascent is made, but caution demands a slow gait, with a hand-car ahead to give warning of possible rock or earth slides to the track from walls or slopes above. From Oroya, roads branching north and south lead to the city of Cerro de Pasco and its copper mines, 14,000 feet above the sea, and to Huancayo (wahn-kah'-yo) in a lower and more fertile section. Both branches are ultimately to be a part of the great Pan-American road which will connect New York with Buenos Aires (bway-nos eye-rez), Arrentina.

Farther south another railroad leads from the Pacific port of Molendo upwards across the desert to Lake Titicaca (tex-tex-kah-ka). In this longer ride, with a night or two spent at Arequipa (ah-ray-kee'-pa), the seenes are varied. To compensate for miles of desert land and sand dunes there is the charming oasis of Arequipa on the slope of the volcano, El Misti-the loftiest mountain known (19,200 feet) which can be ascended on mule-back. Beyond are the snow-crowned summits of Coropuna and Sarasare (over 21,000 feet); the brown grassy hills where the divide (14,666 feet) is crossed; and, at last, mountain-rimmed Lake Titicaca.

Lake Titicaca

The sail across this superb lake, over 12,500 feet above the sea, affords a vision of splendor which, in the estimation of many globe trotters, is unsurpassed on the whole round earth. Across the blue waters of the lake

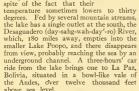
and extending far to the south is the Cordillera Real (Roval Range), a rugged range of majestic mountains stretching 100 miles from the tremendous bulk of Sorata, or Illampu (eel-yam'poo), on the north to Illimani (eel-yee-mah'nee), towering above and beyond La Paz at the south-in sum, a spectacle of extraordinary magnificence.

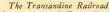
This beautiful body of water, lying half-way



LAKE TITICACA, BOLIVIA Ruins of the lnca Temple of the Sun in the foreground

between Panama and Cape Horn, is twice as high above the sea as the summit of Mt. Washington in the White Mountains of North America. It is about 135 miles long and 66 miles wide, though its outline is very irregular. In addition to the spectacular mountains that surround it, it is embellished by many islands, hills, and promontories. Very cold are these blue waters, though they never freeze, in





In some respects the Transandine is the greatest triumph of the South American mountain railways. It boasts the longest tunnel,—a tunnel about equal in number of fel,—a tunnel about equal in number of the second second



AMID THE SCENIC BEAUTIES OF THE TRANSANDINE RAILROAD
Chile to Argentina



NEAR THE SUMMIT OF THE TRANS-ANDINE ROAD Altitude 10,486 feet

of feet to its height above the sea (considerably over 10,000 feet). The road extends from Valparaiso, Chile, to Buenos Aires, Argentina, the mountain section being a long day's ride between Los Andes, Chile, and Mendoza, Argentina. From Los Andes in the beautiful valley of the Aconcagua (ah-kon-kah/Fewah) River it is a rapid climb up the valley along the foaming torrent. From gentle vegetation to bare rocks and snow, the transition is rapid. In a distance of 35 miles an ascent of 7,000 feet is made by the aid of the rack and pinion system. At an altitude of 9,000 feet is the Lago del Inca (Lake of the Inca), and, beyond, a great curve deeper than a horseshoe at the foot of splendid gloomy cliffs, slopes with rocks of pink and cream splashed with red, bronze, and green and patches of pure white snow. Too soon the tunnel portal is reached,

the splendor vanishes, and for nearly two miles the train goes on in darkness to emerge after ten minutes' ride in Argentina in a wilderness of gorges, rocks, and peaks with fleeting visions of especial grandeur.

A glimpse only is afforded of colossal Mt. Aconcagua, about fifteen miles distant, on the Chile-Argentina boundary line, and of Tupungato at the south. Both these mountains were first climbed by members of the Fitzgerald Expedition in 1897. While Aconcagua, with an altitude of 23,200 feet, holds the honor of being the highest measured mountain on the Western Hemisphere, strange to say its ascent is a mere walk;



THE CHRIST OF THE ANDES*
On the heights above the Transandine Railroad on the border between Chile and
Argentina

though the route towards the summit over strips of snow and loose stones is at a grade which taxes the strongest and is possible only to few, because of the high altitude.

The Transandine Railway was opened for

The I transandine Railway was opened for traffic in time for the Argentine Centennial in 1910. It was, however, closed for some months by snow-slides every year until 1916, when it was kept open all winter on account of the importance of through freight in war time. More snow-sheds have now been built, and doubtless the road will in future be open continuously save for an occasional few days' delay.

Iguassú Falls

The west coast of South America is especially notable for the grandeur of its scenery.

On the east coast are places of more appeal-

ing beauty. The Iguassú Falls, however, not far from the east coast, may be said to combine both qualitiessublimity and charm. There is sublimity in the powerfully rushing waters of the Garganta Fall, and ethereal loveliness in delicate showers of spray. dainty islets, and the exuberant vegetation of the tropical forest. Most of the Iguassú River is in Brazil, though the Falls, which are situated on the boundary between Brazil and Argentina, are at present more accessible from Buenos



Across the Peruvian Andes

^{*}This impressive monument, 53 feet in height from the base to the top of the cross, bears the inscription: "Sconer serves at the feet of Christ the Redeeme."

Aires — the journey consuming five days.

The contour of the falls is most unusual. The greatest volume of water falls into a narrow gorge, the Garganta del Diablo (Throat of the Devil). Just below this, on the Brazilian side, the cliff curves away for a space, and then runs straight down in almost a parallel line to the Garganta. For a considerable distance a part of the stream runs along the upper level, thence falling at several different points into the river below. On the Argentine side the cliff makes an immense curve which forms a rough semi-circle from the Garganta to a point a mile below in a straight line. Other and larger portions of the stream fall over a cliff at various places on this great arc.



"The Three Mousquetaires" or Upper Fall

Whatever the height of the river at different seasons, certain advantages are presented to the sightseer. When the water is low and there is not a trickle to dampen the black walls, one may safely venture to spots at other times unattainable, there to behold scenes of enticing beauty or tremendous power. On the Argentine side of the falls the river's drop is made by several



MOUNT MISTI
With the City of Arequipa, Peru, at its feet

streams in two leaps, each a hundred feet high, while in the Garganta there is a single plunge of 200 feet. The American Fall of Niagara is 164 feet high, the Canadian (Horseshoe) Fall, 150 feet high.

At middle water there may be sixty or seventy distinct though slightly separated falls. In the rainy season, when the water is highest, the falls combine in practically one cascade over two miles wide, and then present a scene of unparalleled



IGUASSÚ FALLS Rossetti Fall

majesty. The variation in water volume is so great that when the river is lowest, generally in April, it may have but half as much water as Niagara, while at its normal height the great American cataract is surpassed in volume of water as well as in height and width, and in beauty of setting.

Beautiful Rio

Of the varied scenic wonders of South America, one that is never overlooked and that never disappoints is the magnificent harbor of Rio de Janeiro.

Splendidly guarded by rocky promontories and islets is this spacious and secure harbor, while up to the narrow portal and reaching out to the ocean front are sections of the great city, without whose circumference rise hills and sharp peaks, with taller mountains in the distance. Conspicu-

ous on the left, as one enters the harbor, is the celebrated Pao (pah-o) de Assucar (Loaf of Sugar), a rock of striking shape and proportions, over 1,300 feet high. A little farther away is the famed Corcovado Needle which litts its sharp peak 2,200 feet above the city's roofs. The multitude of heights around form a "lively guard produced by the contortions of a cataclysm."

The city straggles about the hills, the rocks, and the irregular shore. Once it fell far behind its enchanting environment; but when at last the authorities resolved upon a change, even Yankee hustle was far outdone. Now with its park-like boulevards extending four miles along the shore, with splendid docks farther inside, with beautiful public and commercial buildings, and with luxurious private residences. Rio evokes



MOUNT CHIMBORAZO, ECUADOR

the highest tributes of praise for its exquisite combination of natural and artistic achievement.

The Beira Mar

Alluring is the Beira Mar, the boulevard "By the Sea," unsurpassed even on Mediterranean shores. Crowning the massive sea-wall ever laved by shimmering spray, a broad walk tempts to a promenade. Next to the footway come two wide asphalt spaces, separated



Viewed from a beight of 10,000 feet

by a strip of grass and a row of trees, and these are thronged towards evening with swiftly moving machines. A garden strip of varying width follows, beautiful shrubbery, brilliant coleas and other plants with leaves of varied hue, gorgeous red salvias, geraniums, and other showy flowers. Next comes the wide paved street with ample space for ordinary vehicles and for the double tracks of the electric cars. In a long afternoon, the entire circuit of the city may be made by automobile along the Beira Mar on the shore of the bay, then past the ocean beaches to the mountains, and by a splendid road along the mountainside past Gavea and Tijuca, thence returning by the docks to the Avenida Central; a circuit with varied panorama such as no other city of the world affords. The Botanical Garden, famous for its collection of tropical plants, was founded in 1808. It may be included in the delightful excursion to Gavea. Beyond the sparkling water of the bay, dotted with sea craft of every

size and character, there are shores with bold headlands. the pretty town of Nictherov. and several shore resorts. The

1908, by Annie S Pech

LLANGANUCO GORGE An opening through the Peruvian Andes, four miles in length, lust north of Mount Hussennan

sail should be extended to the Sugar Loaf and Corcovado

great inner bay.

Still more attractive are the sights close at hand: the splendid Sugar loaf, with cliffs so steep and smooth that, apparently, no fly could find a foothold: the wonderfully perfect curves of the shore: the

trees, the shrubbery, the strips of grass and flower beds, which separate the two motorways from each other; the charming homes embowered in fragrant gardens and framed by hills and mountains. Even the great drainage canal is splendid with royal palms. Most delightful to many, of all the days to be spent at Rio, will be that devoted to the ascent of Corcovado. Swiftly speeds the electric car, affording fleeting glimpses of the busy streets and houses below. Winding along the hillside the outlook is enchanting. Any description must fall far short of the reality. The conjunction of a great city with picturesque scenery forms an extraordinary spectacle. As we skirt the hillside in many curves, the city below is on our right; the next moment, the steep slopes above; and now we move

are mosses, ferns, forest palms, a tangle of vines, trees draped with every shade of green, with orchids, begonias and other blossoms, trickling waters, narrow forest paths, glimpses of silver sunlit bay, of dark tree-tops, of massive cliffs below or craggy peak above: a paradise for nature lovers.

through a dense forest. Here

Beautiful Rio! Its unrivaled charms form a superb climax to the tour of South America's chief scenic wonders.



MOUNT ILLAMPU Also called Mount Sorata, Bolivia

SUPPLEMENTARY READING

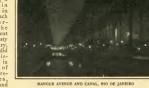
THE SOUTH AM	ERICAN	TOUR		-	-	-		-		-		-	By Annie S. Peck
SOUTH AMERIC	A: Observ	ations an	d Imp	pression	ns	-	-		-		-		- By James Bryce
A BOOKLOVER'S	HOLIDA	YS IN	THE	OPE?	ē	-		-		-			By Theodore Roosevelt
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GUIDE TO SOUT	TH AMER	UCA -		-	-	-		-		-			- By W. A. Hirst

^{*} Tinformation concerning the above books may be had on application to the Editor of The Mentor.

THEOPENI. E T T E R

In Nature's Wonder Show all the continents of the earth compete But when in the scenic offerings size alone is considered the two continents of the Western Hemisphere stand by them-In one feature, it is truemountain altitude... Asia loade the world

with the Himalayas. But in the long stretch mountain ranges, in the for reach of waterwavs, the vast extent and majesty of forestry. in enlandid scenic display, and in wealth of natural resources. North and



Renroduced from a night photograph

to the Amazon.

ica stand shoulder to shoulder in titanic rivalry. Most of the "big shows" of Nature are in the Western Hemisphere-and, though some of us, in enthusiasm for our Northern Continent, might be inclined to doubt it. the honors between the two Americas are fairly balanced.

We proudly call the summit of Mount McKinley "the top of the Continent"and it is the top of the Northern Continent. But the altitude of Mount Mc-Kinley is 20,450 feet, while Illimani, Huascaran, Chimborazo, Seehama, Tupangato and Aconcagua are more than 21,000 feet in height, and there are, in all, no less than sixteen peaks in South America of an altitude greater than that of McKinley.

Niagara is our "Thunder of Waters" and famed the world over. The literature about Niagara is like its water in volume. Niagara has a fall of 164 feet at its highest point, and a width (American and Canadian falls combined) of 3,550 feet. The cataract of Iguassú, on the border of Argentine and Brazil, is 200 feet at the highest plunge and its combined falls make up a total width of about va and fast In full flow Impress nours a much greater torrent of water than Niagara

The length of our Mississippi River.

2 466 miles from the offiin Minnessta to the Gulf of Meyico. The water of the Amazon flows for 3,300 miles source of the Ucavali By River adding the length of the Missouri

River to the

"Father of Waters," is

we get a single water flow of 4 200 miles but, in width, there is no comparison between these streams and the Amazon. which shows stretches of 80 miles and more from bank to bank. One hundred miles of streams-some of them rivers of great size-contribute their waters

So let us pay tribute, then, to the supreme peaks of the Andes, the mighty Amazon, the vast tropical forest wilderness of Brazil, the unique high mountain lake, Titicaca, the nitrate beds of Chile, the magical harbor of Rio, and the farreaching pampas of Argentine; while we take pride in our Big Trees, our broadbosomed fresh water lakes, our Mammoth Cave, our Great Salt Lake, our Yosemite. our Painted Desert, our Yellowstone wonderland, our Garden of the Gods, and the Divine Abyss of the Grand Canyon, There are natural wonders a-plenty known to us in the two Americas, and many more, no doubt, W. S. Woffa to be discovered.



The Harbor of Rio de Janeiro

SIX

F the capital of Argentina deserves to be called the 'City of Good Airs,'" declares Nevin Winter, in bis book on Brazil, "then the capital of Brazil should be termed Buenas Vistas, the 'City of Beautiful Views.' Everywhere the eye falls, it is met with a view worthy of an artist's brush. ... Although plate or film faithfully

reproduces the outline and detail of the scene, the hile of the sty and the waters of the bay, the green of the palms, and the other trees, the colors of the flowers which are omnipresent, and the hright and varied ints of the houses are saddy missing in the resulting photograph. All of these are aboutledy necessary to complete the picsular than the produced of the produced who has guided this second city of South America.

We have all been told how the City of Beautiful Views got its name. How navigators, entering the spacious bay walled in on three sides hy a serrated barrier, thought the inlet to be a river's estuary. How, since they first beheld the spectacular senie in the first month of the year, they called the supposed waterway the "River of January" (*Riv & January*)

Nearly all tourists arrive at the gates of kio by water, and so gain a view never to be forgotien of the sensational range of peaks that sweeps about the city. Bays expense of the sensational range of dinary contour, bues of water and sky and foliage that defy the palette of the painter—these are Nature's contribution builders have doer their tutnost to supplement by winding avenues and fair gardens, and by hubdlings harmonious in design and

This well guarded harbor named for the fictitions "River of January" has a shore line nearly a hundred miles in length. The Indians' name for the bay, Gussnahars, "arm of the sea," is applied to the inner portion, which is cut off by islands and ittle peninsulais in such a way that the full extent of the great triangular land-locked gulf is not visible from the harbor

Travelers are never more conscious of the inefficacy of words than when confronted by the peerless attractions of the harbor of Rio. "How is one to describe Rio?" one asks. "Its hay has been compared to the bays of Naples, of Palermo, of Sydney, of San Francisco, of Honglong, and of Bombay, as well as to the Bos-

phorous. It is not in the least like any of these, except in being beautiful, nor, I should fancy, is it like any other place in the world. Suppose the bottom of the Yosemite Valley filled with water; the effect would be something like the bay of Rio. Yet the superb vegetation would he wanting, and the views to far-away mountains, and the sense of the presence of the blue ocean, outside the capes that guard the entrance. . . . Other cities there are where mountains rising around form a nohle background. Such cities are Athens, and Smyrna, Genoa and Palermo, San Francisco and Santiago de Chile. But in Rio the mcuntains seem to be almost a part of the city, for it clings and laps around their spurs just as the sea below laps around the capes that project into the bay. Nor does one see elsewhere such weird forms rising directly from the yards and gardens of the houses. One can hardly take one's eyes off the two strangest among these, which are also the most prominent in every prospect. The Sugar Loaf is a cone of hare granite, so steep as to be scaleable at one point only by the boldest climbers, which stands on the ridge between the hay and the ocean. The other peak is the still loftier Corcovado, a vertical shaft of rock which springs right out of the houses to a height of over two thousand three hundred feet. Such strange mountain forms give to the landscape of the city a sort of bizarre air. They are things to dream of, not to tell. They re-mind one of those hits of fantastic rock scenery which Leonardo da Vinci loved to put in as backgrounds, though the rocks of Rio are far higher, and also harder. A painter might think the landscape altogether too startling for treatment, and few painters could handle so vast a canvas as would be needed to give the impression which a general view makes. Yet the grotesqueness of the shapes is lost in the splendour of the whole,—a flood of sun-shine, a strand of dazzling white, a sea of



SCENIC WONDERS OF SOUTH AMERICA Lake Titicaca

- TWO

N a of I mo

N a country little changed since Pizarro's conquest of Peru, four centuries ago, lies Lake Titicaca. Its mountain cradle swings as high above the ocean as the crests of many world-famed peaks. Nowhere

on the globe, not even among the plateaus of Central Asia, is there a lake of such extent with an altitude of 12,645 feet. The

bed of Lake Titicaca is a basin between the two ranges of the Andes, on the borders of Bolivia and Peru. North and south of it are vast spaces so level that scientists assume the lake formerly flooded an even larver area.

This limpld body of water, nearly as large as Labe Frie, is in the heart of a mountain lingdom inhalited by a race whose forefathers were subjects of the linea Empire. About the shores of the linea game and the linear ser ceitivated by Indians, who live on coarse foods and are olothed in primitive garments. Indian fishermen make their own vessels by plaiting a species of rush targrows in the water. These are skill-frequently rise with disconcerting swift frequently rise with disconcerting swift ness and skit the clear waters of this deep-

bedded lake to angry tumult,

James Bryce gives us an account of a two-days' sail on Lake Titicaca, "visiting the famous modern shrine of the Virgin of the Light at Copacabana on the mainland and the famous ancient shrine of the Rock of the Sun and the Wild Cat on the Island of Titicaca, which has given its name to the Lake." His visit "fell in the end of September, the spring of Peru. The sun was bright. Only a few white clouds were hanging high in air or clinging to the slopes of the distant mountains; and the watery plain was a sheet of daz-zling blue." The blue of Titicaca, the author tells us, "is peculiar, not deep and dark, nor opaque, but a clear, cold, crystalline blue, even as is that of the cold sky vaulted over it. . . . The Peruvian shore along which we were sailing was steep and bold, with promontories jutting out and rocky islets fringing them. Far away to the east the Bolivian coast rose in successive brown terraces, flat-topped hills where the land was tilled, and higher up, bluish-gray ridges passing into a soft lilac as they receded; and farther still, in the

northeast, the serrated lines of the snowy Cordillera which divides the lake basin from the valleys that run down to the east and the Amagonian forests. The nearer and higher range to the southeast of the lake, which the natives call the Cordillera Real, was almost hidden by the thick clouds which were gathering on its snows, and not till the evening did its proportions stand disclosed. There were all sorts of colors in the landscape-bright green rushes filling the shallow bays, deep black lava flows from a volcanic peak on the west, and a wonderful variety of vellows, pinks, and violets melting into each other on the distant hills. But the predeminant tone, which seemed to embrace all the rest, was a grav-blue of that peculiar pearly quality which the presence of a large body of smooth water gives. . . . Here we could see in two different directions mountain ranges a hundred miles away; and the immensity was solemn. On many of the islands in the lake are dwellings and sacred structures whose owenings and sacred structures whose foundations were laid by Inca chieftains. Often they were built to face, across the shining waters, the white summits of Illampu and the range that ends a hundred

miles to the south in the colossus, lilimani, which looms above the city of La Pan. drawnich looms above the city of La Pan. drawnich looms are riticated in suppressed in the latest and feld or held, prock. The Titi Kalla, or Sacred Rock, pivot of the most remote archaeology of South America, is on an archaeology of South America, is on an archaeology of South America, is on an arcade the rough outline of a wild cat's head. The Rock was the center of a sacromary, a temple of the Soun, which in accuracy as temple of the Soun, which in accuracy are successively as the southern than the sacromary as the source of the sound of the land (the lieved to be the birthplace of the Sun), to this immense, high-born lake interceded



The Transandine Railway

FFORE the year 1010, wh

FORE the year 1910, when the Transandine Railway across the Andes was opened to traffic, the journey from Santiago, Chile, to Buenos Aires, Argentina, was seldom undertaken by overland

travelers between the months of May and October, the South American winter. Even now, traffic is sometimes obstructed by snow slides in the season of heaviest storms. "The excur-

sion across the Andem, says Miss Peck in the Dook, "The South American Tour," less fatiguing than formerly, "is also far less exeting. The comfortable safety of a car ride through a tunnel is tame indeed, a car ride through a tunnel is tame indeed, as the same through a tunnel is the same to the same through a tunnel same through a tunnel same through a same to the same through through through through through the same through the same through t

The traveler who is bent upon crossing the great range by this route from the west leaves the Chilean capital in the late west leaves the Chilean capital in the late do look andes, and agreeable summer resort, and begins the ascent by rail soon after summer, in Los Andes there is a monment to the Clark Brothers, to whose summer, and the summer of the property of the print applied for a concession, but sixteen years passed before they received states a property of the proper

On the way toward the pass, alongside the torrential Aconcagua River, the panting engine makes the accent of 7,000 feet in 35 miles; over a third of this altitude is attained within the last eight miles. A tunnel over two miles long penetrates the ridge of the continent; the boundary setween Chie and Argentina is crossed within the blackness of this mountain within the blackness of this mountain of the continent of the tunnel lies the opident land of the Argentinians, their wide golden valleys, the properties of the continent of the cont

When settlers began to take up lands in Argentina late in the last century, discussion was current as to the possibility of building a rail line across those glooming summits. An English company laid rails as far as the town of Mendoza in Argentina; there for a while the work of crossing the gigantic barrier by railroad came to a stop. At last, in 1887, rails were laid from Mendoza to the base of the main chain of mountains, and on the Chilean side a similar work was undertaken. For a considerable time passengers made the journey from one terminus to another on foot or by mule, or in vehicles "which painfully climbed the steep track that led over the top." The tunnel that finally linked the two railroads is not by any means so long as the three that pierce the Swiss Alps—the Simplon, the St. Gotthard and the Cenis. But the height above sea level is far greater and the scenery more imposing on the Ferro Carril Transandino, Indeed, a famous traveler says, "If any other trunk line of railroad in the world traverses a region so extraordinary, it has not yet been described.'

High on the summit of the pass, above the winding rails, stands the heroic bronze statue of Christ on a pedestal hewn from the side of a mountain. The great figure, with hand uplifted in blessing, commemorates the settlement by arbitration of a bitter and long-drawn-out disagreement between Chile and Argentina as to the boundary line along the ridge of the Andes.



The Andes

- FOUR

IZE," observes the eminent writer, traveler and diplomat, James Bryce, "is only one element in grandeur. A single peak, or even one of its precipices, may be sublime in the boldness of its lines

and its enormous bulk, yet too isolated for that kind of beauty which lies either in the combination of fine lines or in the

contrast of rich colors. . . . Andean peaks are often seen best a long way off, so that they fall into groups or show one behind the other, siving variety of position and contrast of form. Then, the unlovely heaps of gravel and stones or ash cease to deface the landscape, because distance, touching them with delicate color, gives them a beauty not their own. These atmospheric effects," the author continues, the arid parts of South America, in which one may include nearly all of the higher Feruvian, Bolivian, and North Argentine Andes. . From the Equator till one reaches central Chile there is scarcely any water in Andean landscapes, very few lakes, except Titicaca, few rivers and those rivers usually torrents, raging at the bottom of deep gorges, where they are heard but scarcely seen. There is, except in the deeper valleys, no wood, seldom even such glossy shrubs or stunted and gnarled trees as one finds on the dry isles and coasts of the Aegean Sea and the Levant, or on the equally dry bills of Cali-fornia and Arizona. Neither, except in a few upland valleys, is there any verdure of grassy slopes. Green, the softest and most tender of hues, is almost wholly absent from the great ranges and the plateau. On the eastern side of the Andes there is, indeed, vegetation enough and to spare, but, once plunged into the forest, all distant views are lost, for it is everywhere so thick that neither it nor the mountains can be seen at all.'

It seems to be agreed among travelers in the Andes that their chief scenic dis-tinction lies in the "richness and delicacy of the colors which the brilliant desert light gives to distant objects. A black peak becomes deep purple; a slope of dry, gray earth takes a tender lilac; and evening as it falls transfigures with a soft glow the stones that strew the sides of a valley. This is what brightens the sternness of those vast prospects which the Cordillera affords.... The finest things in the Andes are either the views of a single giant peak, like that of Aconcagua, or some distant

prospect of a great mountain group or range, such as that of the Cordillera Real (Royal Range) as it rises beyond Titicaca. or the volcanic peaks of Arequipa (Peru) seen from the desert of the coast. Grandeur and wildness, not beauty, are the note of these regions. Immense depths and heights, vast spaces, too bleak and bare for human life, the sense of tremendous forces at work piling up huge volcanic cones, of unthinkable periods of time during which the hard rocks have been crumbling away and fathomless gorges have been excavated by rivers,-these are the things of which the Andes speak, and they speak to the imagination rather than to the sense of beauty. They are awesome, not lovable; they have a charm peculiar to themselves.

Passengers across the Transandine Railway from Chile to Argentina look eagerly for a glimpse of the master-peak, Aconcagua, whose crest is over four and a half miles above the sea, and nearly a mile ninety miles inland from the Pacific, on the Argentine side of the Andes, it is visible on a clear day from points on the west coast. Travelers across the Cumbre Pass gain the best view obtainable of the imperial summit, fifteen miles away. "Only in the Himalayas and the Andes," we are in the rithmayas and the rinds, we are told, "can one see a peak close at hand soar into air fifteen thousand feet above the cye." There is probably no other peak in the Andes that "rises so near and so grandly above the spectator."

Until 1898, it could not be definitely stated which of the South American peaks was supreme. But in that year the trian-gulation of several of the loftiest of the snowy domes of the Andes determined Aconcagua's superiority in height. In the whole world there are but fourteen mountains with a greater altitude, and those are all in ranges of Asia. According to dependable authorities the four highest mountains of the Andes are Aconcagua (23,290 feet), Tupungato (23,000 feet), Seehama (22,349 feet), and the Cerro del Mercedario (22,000 feet)



SCENIC WONDERS OF SOUTH AMERICA I puassú Falls

- FIVE ---

HIRTY-EIGHT hours are required for the trip by rail from Buenos Aires to Posadas on the Alto Paraná, and three days more for the sail of 215 miles up that river to the mouth of the River leuassú (sometimes soelled "fluzaú"). The hoat zenerally

comes to anchor at nightfall, as the Paraná, though a mile or

more in width, is so shallow that the tortuous channel is seldom attempted after dark.

Prom the boat landing at Fuerto Aquirre (ala-per'-ary) a mile up the Ignassi River, it is twelve miles to the Ignassi River, it is twelve miles to the Talka, a short ride which nevertheless by Talka, a short ride with the received road, occupies at least three boars. Charmingly located near the brink of a great citil are several dwellings which coursits. Most visitors tarry a single night, returning to Posadas by the same boat; but when the present structures are boat; but when the present structures are back to the received received by the place is more accessible, the Iguard's Palls, the Nagara, will be a veritable mocca for

Miss Peck, whom we quote, is one of the few Americans to explore thoroughly the region about the Falls. At the expense of some physical discomfort she and her party were successful in securing points of view rarely attained, when she visited the Palls in May, 1916. She remarks the pristine beauty of the forest environment, and the impressive voice of the plunging white waters, and names the best vantage points from which to look on the splendid dis-play of this wonder-fall. The Garganta cataract, she tells us, "may be seen from above at several points near the edge. One may go, partly by canoe, partly by wading through water to one's knees or waist, to islands at the brink on the Argentine side, and at very low water one may cross in canoe above the Falls and reach islands on the Brazilian side. At a point on one of the Argentine islets, travelers with steady nerves, leaning over the precipice in the midst of roaring waters and showers of spray, may have a glorious view of the rushing stream at their side, of the splendid falls opposite, and of the foaming abyss beneath. Below the Palls a branch of the river may be crossed on a cable connecting with an island from which there is fine view up stream.

The Victoria Falls of the Zambesi River, Africa, discovered by David Livingstone in 1855, has a height of about 300 feet and a width approximating half a mile. Niagara Falls greatly exceeds both Weward and the second of the second of the water that is poured over the nightly ledge on either side of Coat Island. But Iguassi surpasses both Victoria and North Amerrace over which the roating, fourning waters are carried to the gorge below. During the season when the rains are been second of the second of the second beautiful to the second of the second beautiful to the second of the second that time of the year the two crossentshaped falls, the Argentine and the Bramore than four theometry and the second more than four theometry wide.

more than the transmission of the state of the wonderful course (see high-rah) Palls. "Below Guay-ra cataract the current piles up in the Guayra (swigh-rah) Palls." Below Guay-ra cataract the current piles up in the divised sown again into midstream. It returns to the surface in eddies which leap up twelve or fifteen feet in the air, making, as one investigator terms if, making, as one investigator terms if, Niagaran are a quiet dieckpond in compari-

But these falls of La Guayra, which in successive lagar flore, 30 foret, and develop are consistent of the successive lagar flore and even are overshadowed in beauty of form and extensible the wendrous falls of the successive lagar flore and the su



The River Amazon

If was the lust for gold that led to the discovery of the main body of the Amazon. In the year 1540, Piczaro, the Spanish explorer, and his companions first heard alluring tales of the Indians concerning a wondrous region, gold and silver-laden. A company of adventurers set out to find the fabulous land, and one of the

hand, Francisco Orellana, with fifty soldiers, succeeded in reaching hy boat the junction of the Napo River with the titan-stream. "Orellana," writes Paul Fountain, "must have known that he was a vast distance from the Atlantic-must have seen at a glance that the wonderful river he had discovered was rushing with calm but tremendous force, straight for that ocean; and he resolved with indomitable energy and bravery to take all risks, and push on until he had completed his discovery. And so he became, not only the discoverer of the greatest of rivers, hut also the first European to cross the South American continent. Of his adventures on this perilous journey we have no complete account. How he lived, fared, escaped dangers, and finally reached the huge mouth of the river, is told to us in a few words, and many of these, disfigured hy the superstitions of the age, are not very reliable; hut he did perform the voyage; of that fact there is no doubt whatever. More than two thousand miles of the Amazon's course he traversed; and was deservedly honored and rewarded for the remarkable feat."

Orellana called the mighty waterway,
"The River of the Amazons" (Rio de las Amazenas) to commemorate, it is believed. his encounter with a group of native women warriors. The correct name, therefore, is The Amazons' River, Vicente Pinzon, who sailed fifty miles up the river from the mouth, in 1500, bestowed upon it the name, "River of St. Mary of the Tranquil Sea." At various times and by various peoples the broad highway has also been designated as the Orellana, the Grand, the Guyerma, the Marañon and the Solimoes. It is not surprising that a watercourse whose length is as great as the distance from the Thames to the Black Sea, (about 3,300 miles), should bear a variety of names, "especially," a traveler remarks, "as it is joined by nine or ten tributaries, each one of which is in itself a river of vast dimensions. Three or four of them rival the Nile in size, and more

than double it in volume of water. The Amazon is not only itself a huge stream, it is really the parent of the most extensive river system in the world. ... The 1,100 streams connected with the Amazon which exceed a hrook in size have a total length of at least 100,000 miles. The hrooks and runnels larger than those a man could leap across are countless. The valleys of the Amazon are the bests watered on earth."

Four or five days' journey up the river from the important city of Part, the tourist on the Amazon will arrive at the bustist on the Amazon will arrive at the bustturns out of the main stream and follows turns out of the main stream and follows miles above the junction of the two rivers. Manaos is a city of surprising progress and attraction. Its well-equipped harbor, magnificent avenues, and clahorate huildings astonish the visitor who has traveled 500 miles through an almost unbroken Amazon Basio.

Usually, the larger the river the greater the confusion as to its true source. For years the origin of the Mississippi has been a matter for exploration and a subject of controversy. As to the actual head of the Amazon, some geographers declare it to be the Ukayale (u-kigh-ah-lay) River in Peru, but other authorities claim this distinction for Lake Lauricocha, a rock-bound sheet of water in the Peruvian Andes, about ten thousand feet above the sea. The upper course of the Amazon (here known as the Marafion) is overborne hy awesome mountains and bedded in canyons many fathoms deep. Where the main stream leaves Peru and enters Brazil, it has a width of one to two miles and is less than three hundred feet above sea level. Flowing between leagues of tangled forest walls, its breadth gradually increases to fifty miles, then to a hundred until, at the mouth, a span of one hundred and fifty miles divides its banks. Deep and wide, long and tawny, is the Amazon, the beneficent, the powerful—the wonderriver of the universe.

The Two Americas



HE physical structure of the two continents shows certain similarities. Each is traversed from north to south by a great mountain chain, sometimes breaking into parallel ridges and sometimes widening out into high tablelands. In each this chain is much nearer to the western than to the eastern coast, and in each there are vol.

canic outhursts at various points along the lines of elevation, these being more continuous and on a vaster scale in the southern continent. In each there is, moreover, an independent mountain mass on the eastern side-the Appalachian system in North America, the Brazilian highlands in South America. Each has, nearer to its western than to its eastern coast, a desert, and in that desert an inland river hasin with lakes, Great Salt Lake in Utah corresponding roughly to Lakes Titicaca and Poopo in Bolivia. Each has two gigantic rivers, though the Mississippi and St. Lawrence are not equal in volume to the Amazon and the Parana. The shores of both are washed by mighty ocean currents, but while the Gulf Stream warms the east coast of the northern, the Antarctic current chills the west coast of the southern continent. Their climates are so far similar that, in both, the east side of the continent receives more rain than the west, but South America, having its greatest breadth in the tropics, lies more largely within the torrid zone.

TAMES BRYCE.



